

Disc Drive Head-Media Spacing Modeling and Applications**ABSTRACT**

A method and apparatus for disc drive modeling to determine head-to-media spacing subject to disc media topography, roughness and waviness, is disclosed.

- 5 More particularly, an equation describing head-to-media spacing associated with roughness and waviness of a disc media surface is described. A process for simulating a head traveling over a reference disc media surface is used to implement such an equation. This simulation results in an air bearing transfer function for a spectral density, which is convolved with a power spectral density function for a disc media
- 10 surface under test. Such a result may be used to predict glide avalanche for the head and the disc media under test.